

- DDL/DML/DCL-

1. DDL – Data Definition Language

1.1. CREATING TABLE

Creating from scratch	Creating a similar table to a pre-existing one
<pre>CREATE TABLE EMP1(EMPNO NUMBER(4), 4 digits max ENAME VARCHAR2 (10) NOT NULL, ← A value must be entered JOB VARCHAR2 (9), HIREDATE DATE DEFAULT SYSDATE, SAL NUMBER (7,2), ← Default: if value is not specified, it returns today's date (sysdate) COMM NUMBER(7,2), DEPTNO NUMBER(2) UNIQUE, ← Every DEPT is unique PRIMARY KEY (EMPNO), CHECK (SAL>0), ← Limits the value range that can be placed in a column. FOREIGN KEY (DEPTNO) REFERENCES DEPT1(DEPTNO)); ← The one that is used to link two tables together via the primary key.</pre>	<pre>CREATE TABLE EMP_COPY ← New table called "EMP_COPY" AS SELECT EMPNO, ENAME, DEPTNO FROM EMP;</pre> <p>Fields that will be included in table EMP_COPY</p>

1.2. CHANGING TABLE LAYOUT

ADDING	MODIFYING	DROPPING
<pre>ALTER TABLE EMP03 ADD (JOB VARCHAR2 (20), SAL NUMBER (7,2));</pre>	<pre>ALTER TABLE EMP03 MODIFY (EMPNO VARCHAR2(4));</pre> <p>*modification is only allowed when the the type of data is kept the same (VARCHAR(3) → VARCHAR(4))</p>	<p>Eg. 1:</p> <pre>ALTER TABLE EMP03 DROP COLUMN JOB;</pre> <p>Eg. 2:</p> <pre>ALTER TABLE EMP03 DROP UNUSED COLUMNS;</pre>

1.3. DELETING TABLE

DROP TABLE EMP01; If another table has reference data from this table, it cannot be deleted

1.4. RENAMING TABLE

RENAME EMP02 TO TEST; Changing table EMP02 to "TEST"

2. DML – Data Manipulation Language

2.1. INSERT

Adding values to all fields	Adding data to specific fields	Adding data retrieved from another table (using subquery)
<pre>INSERT INTO DEPT01 VALUES (50, 'ACCOUNTING', 'NEW YORK');</pre>	<pre>INSERT INTO DEPT01 (DEPTNO, LOC) VALUES (60, 'SEOUL');</pre>	<pre>INSERT INTO DEPT01 SELECT * FROM DEPT</pre>

2.2. UPDATE

UPDATE DEPT01

SET LOC = (SELECT LOC FROM DEPT WHERE DEPTNO=60)
WHERE DEPTNO >=20;

2.3. DELETE

DELETE
FROM EMP01
WHERE ENAME='FORD';

3. DCL – Data Control Language

3.1. CREATE - CONSTRUCTING USER ADDRESS (scott2)

CREATE USER Scott2 identified by 1234;

3.2. GRANT – Giving access rights

GRANT CREATE SESSION TO Scott2;
GRANT ALL ON EMP TO Scott2; -
GRANT ALL ON DEPT TO Scott2;

3.3. REVOKE – Taking away access rights:

REVOKE ALL ON EMP FROM Scott2

3.4. DROP – Deleting a user

DROP USER Scott2 CASCADE;

3.5. COMMIT

- It ends your current transaction and make permanent all changes performed in the transaction.

Until you commit a transaction, you can see any changes you have made during the transaction by querying the modified tables, and you can rollback (undo) any changes made during the transaction.

- This statement also erases all savepoints in the transaction and releases transaction locks.

3.6. ROLLBACK

- It undoes work done in the current transaction.

3.7. SAVEPOINT

- It marks different moments within the transaction that allows for a partial rollback till that position.